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Castro Herrero, Laia ; Skovsgaard, Morten ; Nir, Lilach

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Abstract

Previous studies show that individual political interest is an antecedent of news media exposure, particularly of exposure to differing views. Nevertheless, little is known about this effect from a comparative perspective: how do media institutions affect the relationship between political interest and exposure to cross-cutting viewpoints? One institutional feature that varies between countries is the ownership of broadcast media. This study investigates the extent to which the relative dominance of public service broadcasting alters the relationship between political interest and non-likeminded, or cross-cutting news media exposure across 27 EU countries. The analyses employ survey data from 27,079 individuals and media content from 48,983 news stories. The results confirm that the extent to which political interest contributes to cross-cutting exposure is contingent on the strength of public service broadcasting. The stronger the broadcaster, the *smaller* the gaps between the most and least politically engaged individuals.

Keywords: selective exposure, cross-national & comparative, survey research, public broadcasting, news media

Bridging Gaps in Cross-Cutting Media Exposure:

The Role of Public Service Broadcasting

The quality of democracy is often estimated by the extent to which citizens are enabled to *hear the other side*. Ideal deliberative democracies, political theorists argue, should facilitate inclusive discussions among free and equal individuals, whose public discursive exchanges would allow the stronger argument to predominate and lead to agreed-upon decision making (Guttman & Thompson, 2009; Habermas, 1984). Given the difficulties of complying with such procedural ideals, a more pragmatic notion of *deliberativeness* demands that citizens are regularly exposed to viewpoints opposed to their own.

The benefits of frequent cross-cutting exposure are manifold. As Mutz (2006) notes, non-likeminded, or cross-cutting information provides for greater awareness of one's own and others' political perspectives and adds to political tolerance among citizens from all social backgrounds and credos. Being able to understand different political views is ultimately the foundation for discussing pressing issues and reaching political compromises widely perceived as legitimate (e.g., Mutz & Young, 2011).

In highly mediated democracies the news media are important sources of political information and for challenging political perspectives. With the shift from a low-choice to a high-choice media environment, individual motivation has become an increasingly important predictor of media use. As a consequence, the gap in news exposure between the most and the least politically interested has increased over time (e.g., Prior, 2007; Strömbäck, Djerf-Pierre, & Shehata, 2013). A similar trend can be expected for cross-cutting media exposure, as political interest has also been shown to play a major role in exposure to non-likeminded information and deliberation skills (Garrett, 2009; Price, Cappella, & Nir, 2002). Gaps in cross-cutting exposure are problematic for democracy, since the benefits (political tolerance, awareness of multiple views) are only reaped by highly motivated individuals.

Recent research indicates that the *opportunity structure* provided by the media environments within which one is embedded moderates the effect of individual motivation (e.g., Nir, 2012b; Shehata & Strömbäck, 2011; Skovsgaard, Shehata, & Strömbäck, 2016). In other words, whether or not cross-cutting exposure occurs does not solely depend on the individual will to seek oppositional views and entertain disagreement, but also on the supply of—and thereby the opportunities to encounter—diverse viewpoints in the media environment (Mutz & Martin, 2001).

We argue that an institutional feature of media markets, namely the presence of public service broadcasting (PSB), equalizes opportunities for cross-cutting exposure. In countries with stronger public service broadcasters (PSBs), the supply of news is larger, particularly during prime time (e.g., Esser et al., 2012), and the news coverage is expected to reflect an obligation to be politically balanced and to present diverging perspectives (Hallin & Mancini, 2004; McQuail, 1992). In addition, previous research has found a spill-over effect of standards from public service broadcasting to other media in the same market (Pfetsch, 1996; Reinemann, Stanyer, & Scherr, 2017). The result is that media environments characterized by strong public service broadcasting minimize the possibility of avoiding cross-cutting news and make unintentional cross-cutting media exposure more likely. Thus, in media systems with strong public service broadcasting, personal political interest can be expected to be a less important predictor of cross-cutting media exposure than in media systems with weaker public service broadcasting.

Our analysis capitalizes on the differing strength of public service broadcasting across European Union member states, and relies on survey and content data on the European Election Study 2009 from 27 European Union (EU) countries. Our findings indicate that, in countries with strong public service broadcasting, there are smaller differences in cross-cutting exposure between individuals who are more and less politically interested;

conversely, in countries with weak public service broadcasting, there are wider gaps in cross-cutting exposure.

Theoretical Review and Hypotheses

Cross-cutting exposure has been defined as the extent to which citizens are “exposed to political perspectives that they do not find agreeable” (Goldman & Mutz, 2011, p. 42). The concept has important implications for the quality of democracy because it is associated with greater tolerance (Mutz, 2002a), legitimacy, and satisfaction with the system and its outcomes (Esterling, Fung, & Lee, 2015); political knowledge with the outlook of future interactions (Eveland, 2004); argument repertoire in support of opposing viewpoints (Price et al., 2002); and has mobilizing effects (Nir, 2011). Cross-cutting exposure gaps between individuals with different motivations and attitudes have further normative ramifications. Such gaps create asymmetries in citizens’ ability and will to reach political consensus, and to competently influence political processes. As traditional studies on public policy tell us, an unequal distribution of political power poses a serious threat to effective democratic governance (Downs, 1957; Verba, Scholzman, & Brady, 1995).

Despite its relevance and the wide array of studies dealing with individual determinants and the increasing opportunities provided by current media markets to self-select political information (e.g., Arceneaux & Johnson, 2013; Levendusky, 2013; Mutz & Young, 2011; Prior, 2007; Stroud, 2008, 2011), the mechanisms through which people engage in cross-cutting media exposure have been much less researched, with a few notable exceptions (i.e., Garrett, 2009; Garrett & Stroud, 2014; Goldman & Mutz, 2011; Mutz & Martin, 2001).

Political Interest and Cross-Cutting Exposure

Political interest is an important antecedent of news media exposure (Strömbäck & Shehata, 2010). It has also been shown to increase political knowledge (Delli Carpini &

Keeter, 1996) and attentiveness to political phenomena (Lupia & Philpot, 2005). We argue that political interest also increases cross-cutting media exposure.

One reason is that some individuals like to think of themselves as well-informed and fair-minded citizens (Garrett, 2009). Some even consider learning about competing political options to be their democratic duty (Hamilton, 2004). Thus, staying attuned to alternative viewpoints rather than avoiding them satisfies the perceived self-image of those more politically interested and engaged individuals. Engaging in rebutting oppositional arguments can even be emotionally gratifying (Westen, Blagov, Harenski, Kilts, & Hamann, 2006). Indeed, when politically sophisticated individuals are exposed to attitude-discrepant information they engage more in counter-arguing the information than in bolstering attitude-consistent information; this is not the case for the less politically sophisticated (Taber & Lodge, 2006).

In addition to these *internal* psychological incentives, the politically interested also have a social reason to seek counter-attitudinal perspectives: they aim to pass information on to others and thus be socially influential (Chaffee, 1982). Political interest is actually a well-established predictor of engagement in political discussion (e.g., Kim, Wyatt, & Katz, 1999; Pan, Shen, Paek, & Sun, 2006). In particular, the more politically interested are more likely to seek political networks based on the expertise of their discussants (Huckfeldt, 2001) rather than on family ties and friendship, which in turn makes their discussions more politically heterogeneous (Klofstad, McClurg, & Rolfe, 2009). However, in general, one cannot be influential among peers without being able to anticipate oppositional arguments and rebut them. More politically interested citizens therefore have stronger incentives to learn opposing perspectives in preparation for future social exchanges (e.g., McLeod & McDonald, 1985).

Following the psychological and societal mechanisms accounting for cross-cutting exposure, it makes sense that the more politically interested show greater deliberative skills

and abilities to understand others' reasons (Price et al., 2002). They are not only better at processing congruent information that easily comes to mind (Taber & Lodge, 2006), but are also stronger at recalling uncongenial messages (Eagly, Kulesa, Brannon, Shaw, & Hutson-Comeaux, 2000).

In summary, political interest makes citizens seek and call to mind cross-cutting viewpoints. Not only is this emotionally gratifying and consistent with their perceived self-image, but being well-motivated and informed enables these politically interested individuals to refill their cognitive chambers with new ammunition for forthcoming political discussions. Based on these arguments, our first expectation is:

H1: Political interest is positively linked to cross-cutting media exposure (or XME).

Public Service Broadcasting as a Contextual Moderator

Levels of political interest in Europe remain low (albeit with important differences between countries) (Van Deth & Elff, 2001), especially among “economically disadvantaged” groups (Oskarson, 2007, as cited in Strömbäck & Shehata, 2010, p. 576). This is noteworthy because if a great number of citizens with low political interest avoid exposure to cross-cutting views, society as a whole risks losing mutual understanding at a sufficiently high level necessary to discuss and reach political compromises (Mutz & Young, 2011).

An individual's exposure to cross-cutting information cannot be explained solely by individual motivation; one's opportunities to find media content also matter. To paraphrase Luskin (1990, pp. 334–335), Bedouins in Sahara do not become champion swimmers, regardless of their motivation; by the same logic, it is no coincidence that the best alpine skiers are from countries with snow-covered mountains. Thus, the opportunity structure provided by a given media market, i.e., the availability of different content and how easily citizens can select and avoid information in line with their preferences, also matter for

explaining differences in individual media exposure (e.g., Althaus, Cizmar & Gimpel, 2009; Skovsgaard et al., 2016).

Previous research offers two relevant perspectives on how media environments affect media consumption gaps. On the one hand, a strand of literature shows that high media choice bolsters the role of individual motivations and abilities in news exposure or political knowledge (Jerit, Barabas, & Bolsen, 2006; Prior, 2007). On the other hand, studies using European cross-national data provide evidence of the equalizing character of inclusive media markets whose reach extends beyond elites. Certain institutional features of media can broaden information reach and thus potentially level the political playing field. For example, a less fragmented media environment is associated with a narrower gap in political engagement between individuals from different socio-economic strata (Nir, 2012b). Greater *newspaper centrism* narrows the gap in newspaper reading between the less and more politically interested and knowledgeable (Shehata & Strömbäck, 2011). A dominant PSB bridges knowledge gaps between the more and less politically interested (Iyengar et al., 2010).

In line with Iyengar et al. (2010), we argue that PSB plays an essential role in spreading and equalizing exposure to political news—and in our case, cross-cutting news media exposure—and moderates the impact of political interest on non-likeminded media exposure. We elaborate on three reasons below: the institutional commitment of PSB, its spill-over effects on commercial media, and its contribution to media supply integration.

Firstly, in countries with strong PSB the supply of news is larger, particularly during peak hours, during which the less interested are more likely to encounter news as a by-product of watching prime-time television rather than because of an active choice to tune into a news broadcast (e.g., Aalberg & Curran, 2012; Esser et al., 2012; Iyengar et al., 2010). Indeed, the less politically interested viewers of public service television gain more political

knowledge (i.e., have a steeper learning curve) than the more politically interested (Shehata, Hopmann, Nord & Höijer, 2015). PSB can be expected to have the same levelling effect on cross-cutting exposure. Political balance and representativeness are hallmarks of PSB—especially concerning news coverage and current affairs programming (McQuail, 1992). In combination with the substantial supply of news—also during prime time—the obligation to present opposing perspectives is conducive to cross-cutting media exposure, not only among the more politically interested, but also among the less politically interested who ‘just happen to’ watch the news.

Secondly, previous research reports spill-over effects of PSB standards on commercial television channels (Pfetsch, 1996). A study of 16 Western democracies confirms such effect and concludes that it is correlated with the strength of PSB in the national market. The stronger the PSB, the more other media adapt the PSB standards for reporting political information (Reinemann, Stanyer, & Scherr, 2017). To the extent that PSB is successful in setting common patterns and routines in news coverage, this spill-over provides additional opportunities for cross-cutting exposure when consuming news in general.

Thirdly, the more dominant a PSB within a media market, the smaller the remaining portion of the media market. The consequence is less choice for the individual media consumer and, by extension, less selectivity and audience fragmentation along partisan lines. Thus, media systems with stronger PSB offer more opportunities to encounter non-likeminded information by coincidence, and make avoiding cross-cutting exposure a much more difficult task.

Previous studies show that, overall, media systems in Northern, Southern and Central-Eastern European countries are characterized by different levels of PSB popularity (Brüggemann, Engesser, Büchel, Humprecht, & Castro, 2014; Hallin & Mancini, 2004).

European countries are therefore fertile environments for testing how different media contexts make individual differences less crucial for cross-cutting exposure.

To summarize, past research indicates that political interest equips citizens with motivation and knowledge to seek oppositional media perspectives. This exposure allows them to competently counter-argue others' political views and satisfy their self-image as fair-minded individuals. Yet, cross-national research on news consumption patterns reveals that inclusive media markets familiarize citizens with political diversity and reduce the importance of individual characteristics and motivations for media usage habits. We therefore formulate the following hypotheses:

H2: Public service broadcasting is positively associated with XME.

H3: The stronger PSB, the weaker the positive relationship between political interest and XME.

Data and Methods

To empirically test our hypotheses, we rely on survey data and media content from 27 EU member states, collected by the European Parliament Election Study 2009 (EES). The EES 2009 offers an unprecedented set of codes and questions that enabled us to both uncover the political tone of the main media outlets across Europe, and analyze the media consumption patterns and political attitudes of more than 27,000 individuals throughout the region. Both the EES voter survey and media content are based on the same election (2009 EU elections) and therefore hold equivalent data across countries. The countries considered are Austria, Belgium (Flanders and Wallonia), Bulgaria, Czech Republic, Denmark, Cyprus, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden, and the UK.

The EES voter survey contains data on the political attitudes and media use of 27,079 EU citizens from 27 member states collected during the three weeks following the June 2009 European Parliament elections. The sample size per country ranges from 1,000 to 1,020 cases (within Belgium, $N=529$ for Flanders and $N=473$ for Wallonia). Adults aged 18+ years were interviewed either by telephone or face-to-face, using a standardized questionnaire. The average response rate across modes is 28.4 percent (AAPOR RR1), and varies from 10.9 per cent (Netherlands) to 60.3 per cent (Bulgaria). Appendix A contains the question wording for each variable used.

The EES media study includes information on media outlets' coverage, taken from 48,983 news stories across TV channels and newspapers of 27 member states. The data were collected during the June 2009 European election campaign (14 May- 4 June for some countries, up to 17 May- 7 June for others). The EES content analysis allows us to assess the political skew of three leading newspapers and two major television news programs in each media system, except for Germany (where information was available on four television channels) and Spain (three television channels). More specifically, we utilized 3,390 news evaluations on the national government's record in the 27 EU countries considered, except for Denmark (evaluations of one newspaper were missing) and the Netherlands (data for one TV news channel was not available). ¹

We draw on random-intercept regression models, using individual exposure to cross-cutting information as the dependent variable. These models allow us to both account for the hierarchical structure of our data by decomposing individual and country-level variances, and also to explain the relationship between cross-cutting news media exposure and our main independent variable of theoretical interest, namely political interest, considering contextual interactions (i.e., with public service broadcasting strength).²

Dependent variable. To operationalize cross-cutting news media exposure we rely on a measure that accounts for the distance between an individual's stated political preferences and the political stand of his/her media diet. That is, we calculate the distance between his/her evaluation of the national government's record, and the average evaluation found in news stories of the outlets he/she encounters on a weekly basis. We first build a variable that accounts for the extent to which an individual approves (1) or disapproves (-1) the government's performance to date. Secondly, we calculate the mean of each national government's positive (1), balanced/mixed (0), or negative (-1) evaluations found in each outlet's news stories. Lastly, we calculate the absolute difference between each individual's approval of their government and the average degree for each media outlet this individual uses at least once a week, averaged by the number of news media outlets they follow (see Appendix B for the formula and how scores are calculated for each individual and media outlet). The measure ranges from 0 to 2, where 0 represents non-exposure to cross-cutting viewpoints, 1 is moderate levels, and 2 is the highest degree of exposure to cross-cutting information (descriptive statistics and a variance-covariance matrix of the variables used can be found in Appendix C).³ The use of governmental evaluations to measure cross-cutting exposure is an informative heuristic that allows us to investigate people's and media's stand on a general ideological outlook. It provides generalizable results across different countries and sidesteps potential problems linked to other operationalizations, such as diverse conceptions of "left" and "right" between Central-Eastern Europe and Western Europe, difficulties to set cut-off points between categories and ideological labels, relative differences in political polarization, party-issue ownership and party segmentation, or higher or lower saliency and competition of different political dimensions.

Independent variables. Political interest is our main independent variable of theoretical interest. EES respondents were asked the extent to which they were interested in

politics, with responses categorized from “Not at all” (1) to “Very interested” (4). Since we hypothesize that the relationship between political interest and cross-cutting news media exposure will be moderated by the strength of PSB, the latter is included in our regression models, both as a stand-alone independent variable and as an interaction with political interest. The strength of each country’s PSB is measured by means of its audience share, retrieved from the European Audiovisual Observatory 2011 dataset.⁴

Additionally, we control for left–right self-placement and political ambivalence, since previous research revealed that (US) conservative and liberal partisans show distinct patterns of exposure to *consonant bias* (Garrett & Stroud, 2014; Iyengar & Hahn, 2009), and extremism and strength of partisanship have been shown to affect exposure to *cognitive dissonance* to various extents and in different ways (Greenberg & Jonas, 2003; Jost, Glaser, Kruglanski, & Sulloway, 2003; Sidanius, 1985). Political ambivalence is operationalized for each individual as the difference between an individual’s first and second most preferred political party. The measure ranges from 0 to 10, with lower difference indicating greater political ambivalence (see Appendix A for further details).

Potentially confounding variables such as news media exposure are also considered. Those individuals who most frequently seek news also have more chances of watching or reading viewpoints different from their own (e.g., Sears & Freedman, 1967). It is plausible that rating higher in cross-cutting exposure is simply the result of consuming greater amounts of news information. We also include a 7-point scale additive index of political knowledge to control for those individuals who may engage in more cross-cutting news exposure because it is easier for them to process new information (Taber & Lodge, 2006). Further socio-demographic variables such as education, age, and gender are included in our regression models.

Finally, our models also account for variations between countries in several dimensions. A majoritarian/proportional electoral system variable is coded following CSES (2005), where 1 represents a majoritarian system, 2 a mixed system, and 3 a proportional electoral system.⁵ *Power-sharing* electoral systems have been shown to increase discussion rates by mobilizing (citizens feel more represented and less alienated in those systems) and adding to citizens' political sophistication (through parties that make huge efforts to differentiate themselves from their counterparts) (Nir, 2012a), and we expect a similar impact on exposure to deliberativeness in the media. We additionally account for a media system's characteristics, namely *media-party parallelism*, as a potential predictor of cross-cutting exposure (Van Kempen, 2007), which we construct following Van Kempen's methodological approach (2007) (See Appendix A). As Goldman and Mutz (2011) showed, levels of cross-cutting exposure seem to be lower in systems where media outlets are differentiated along partisan lines and thereby facilitate self-selection of like-minded information.

Results

Figure 1 summarizes average levels of cross-cutting news exposure for the three main newspapers and two major television news programs in the 28 media systems considered in this study (recall our level-2 sample gathers media systems, since we distinguish between Flanders and Wallonia). Despite high between-country variability, the results show that people in each of the surveyed states frequently seek at least some cross-cutting news. XME scores high for EES respondents in Netherlands ($M=1.14$, $SD=0.95$), Slovenia ($M=1.13$, $SD=0.74$), Sweden ($M=1.04$, $SD=0.58$), and Slovakia ($M=1.03$, $SD=0.72$); and yields the lowest scores in the UK ($M=0.41$, $SD=0.79$), Latvia ($M=0.42$, $SD=0.39$), Estonia ($M=0.44$, $SD=0.83$), and Lithuania ($M=0.44$, $SD=0.75$).

[Figure 1 about here]

Other analyses demonstrate that the impact of political interest on cross-cutting exposure also varies across countries (not shown here). Overall, these results show the need to account for further contextual variables that explain significant gaps between countries in terms of cross-cutting news exposure levels, above and beyond individual differences in political interest.

In Table 1, Models 1 to 4 uncover the individual and contextual contributions to cross-cutting news exposure. The random-intercept regression models are built on the following equations:

$$\begin{aligned}
 XME_{ij} = & \beta_{0j} + \beta_1 Pol. Interest_{ij} + \beta_2 Pol. Knowledge_{ij} + \beta_3 Pol. Ambivalence_{ij} + \\
 & \beta_4 NewsExposure_{ij} + \beta_5 Left-Right_{ij} + \beta_6 Age_{ij} + \beta_7 Education_{ij} + \\
 & \beta_8 Female_{ij} + \beta_9 PSBstrenght_j Pol.Interest_{ij} + \varepsilon_{ij} \\
 \beta_{0j} = & \gamma_0 + \gamma_1 PSBstrenght_j + \gamma_2 ElectoralSystem_j + \gamma_3 MPParallelism_j + \zeta_j
 \end{aligned}$$

Model 1 in Table 1 is a null model with no predictors, which allows assessment of the degree of variation of our dependent variable (XME) and how the model fit increases with the inclusion of independent variables in Model 2. Model 3 accounts for both individual-level and further media-system level controls, and Model 4 includes PSB strength and political interest as an interaction variable.

The last two rows of Table 1 show the variance at the individual level (Level-1 variance) and the variance of the intercept of XME across countries (Level-2 variance). The proportion of variance of XME that remains to be explained at both levels tends to decline across models. The intraclass correlation coefficient (ICC) decreases from the null model (where 10% of the unexplained variance remains at the media-system level) to Model 4 (where unexplained variance drops to 7%). The decreases in Akaike's information criterion (AIC) and the Bayesian information criterion (BIC), which correct for the inclusion of

predictors, also confirm that the models fit the data better with the inclusion of additional variables (not shown in table).

The models reveal that political interest is positively linked to cross-cutting news media exposure, supporting our first hypothesis. An additional unit of political interest raises cross-cutting news media exposure by 0.03 on a 3-point scale. Similarly, a one-unit increase in public service broadcasting strength implies an increase of 0.006 in the cross-cutting news media exposure scale⁶.

Therefore, as our second hypothesis proposed, the strength of public service broadcasting also adds to the likelihood of engaging in XME. As the table shows, the relationship holds even after taking into account alternative individual- and context-level explanations.

[Table 1 about here]

Furthermore, we find support for the third hypothesis, in which we anticipate that the role of political interest is attenuated by PSB strength. The negative score for PSB strength by political interest cross-level interaction reported in Model 4 shows that the relevance of political interest for explaining XME decreases with stronger PSB. For each unit increase in the strength of PSB, the effect of political interest decreases by 0.002. For example, in Denmark, as the country with the highest PSB strength (60% of audience share), the expected impact of political interest on XME is -0.008; whereas for Luxembourg, where PSB strength scores 0 (no PSB), the predicted effect is 0.062.

The impact of political interest on cross-cutting news media exposure for different levels of PSB strength is further illustrated in Figure 2. The figure plots different regression slopes for political interest on cross-cutting news media exposure (or XME) for different levels of PSB audience share, i.e., at the mean, and ± 1 standard deviation from the mean (Aiken and West, 1991). When PSB strength is held at the mean minus one standard

deviation, the slope is steeper than when PSB strength is one standard deviation above the mean, meaning that political interest is a less important predictor in systems with a stronger PSB than in countries with weaker PSB. Therefore, the disparities in cross-cutting news exposure, between more and less politically interested individuals, are *narrower* in media systems with stronger PSB than those with weaker PSB.

[Figure 2 about here]

Additionally, as anticipated, Table 1 shows that political knowledge and news media exposure are also positively linked to cross-cutting media exposure. Consistent with the previous literature (Sidanius, 1985), we found no significant relationship between political ambivalence and XME. Being strongly partisan—as opposed to being politically ambivalent—was not correlated with unwillingness to experience *cognitive complexity* through cross-cutting news media exposure. Also, right-wing Europeans seem to be exposed to more disagreement than left-wing individuals, unlike in the United States (Iyengar et al., 2008). Higher levels of education and age correlate with high degrees of XME, whereas gender (being female) decreases the likelihood to engage in XME. The findings also corroborated the anticipated influence of the political system. Individuals living in countries with proportional electoral systems seem to encounter cross-cutting information in greater numbers. However, we could not find any significant impact of media–party parallelism on the likelihood of encountering disagreement through the media.

Discussion

Research on news choice has devoted far more attention to the study of the antecedents and consequences of exposure to like-minded information than to the determinants of cross-cutting news media exposure. Whereas a thriving body of literature deals with exposure to diversity in political discussion (e.g., Esterling et al., 2015, Klofstad, Sokhey, & McClurg, 2013; Price et al., 2002), few studies have examined how media

landscape characteristics (Goldman and Mutz, 2011; Mutz & Martin, 2001) or individual predispositions (Garrett, 2009; Garrett & Stroud, 2014) explain exposure to news media outlets across lines of political difference. This omission is striking, given that the media are considered the main source of citizens' information on political diversity, much more so than interpersonal communication (Chaffee, 1982; Gentzkow & Shapiro, 2011; Mutz & Martin, 2001).

The present study investigates why people are exposed to cross-cutting information in news media. Two main factors are scrutinized: the impact of individual political interest, and the role of the media institutional context. We hypothesized that the contribution of political interest to XME is contingent on the strength of the public service broadcaster in a given society. More politically interested individuals are more motivated to follow current events and to seek oppositional views in order to fulfill their self-image of a well-informed citizen, and to be able to argue and counter-argue in future social interactions. However, individual predispositions play a weaker role in settings that provide greater access to politically diverse information. In that respect, PSB functions as an institutional moderator, and redistributes the opportunities for encountering political difference among more and less interested citizens. Our analyses support these hypotheses. The strength of both political interest and PSB increase the likelihood of non-likeminded news media exposure, and the impact of political interest is weaker in media systems where PSB is strong.

These findings have several theoretical implications. Firstly, they add to the previous literature on selectivity in media consumption by uncovering the role of citizens' opportunities and motivations for cross-cutting news exposure in current media landscapes. Not only do media users search for like-mindedness, as the previous empirical literature shows for the US (Stroud, 2008, 2011), but they also seem to hold more heterogeneous media diets. Specifically, individuals with high political interest tend to search for uncongenial

information. However, media systems with strong PSB facilitate access to politically balanced news information, and spread standards of political diversity across media outlets. This increases the opportunities for less motivated individuals to encounter cross-cutting information without actively searching for it and have an equalizing effect on the level cross-cutting exposure between more and less politically interested individuals. In this respect, our paper is inspired by *systemic equalizer* approaches (Iyengar et al., 2010; Nir, 2012b). Studies grounded in such tradition show that where media environments make information more accessible, there is less disparity in engagement and news exposure between citizens. Our findings thus complement cross-national studies showing that lower news media fragmentation (Nir, 2012b) and greater news reach (Shehata & Strömbäck, 2011) provide citizens with abilities and motivations conducive to all forms of news media exposure. Our study also adds to the previous literature revealing that encountering disagreement in the media and social networks influences political engagement. As Torcal and Maldonado (2014) have shown, encountering *mass media heterogeneity* increases political interest. Following previous research showing reciprocal causation between political engagement and news media exposure (Strömbäck & Shehata, 2010), we may find a similar *virtuous circle* between political interest and exposure to non-likeminded news, or even a greater impact of news exposure on political interest than vice versa for outlets that require more user attention e.g. newspapers (see Boulianne, 2011).

On that note, the analysis of longitudinal data could help identify the direction and strength of causality between both mechanisms. The high demands of collecting cross-national panel survey and content data, or recalling experimental evidence, makes this task more suited for future research. Nevertheless, our findings across 27 countries offer generalizable evidence, and hold after both individual and contextual characteristics are taken into account. An important limitation of our analysis is its reliance on PSB market shares as

an indicator of PSB ability to spread standards of political balance and pluralism. For the sake of interpretation, we did not account for the market strength of PSB and the degree of institutional commitment of PSB in a single measure. However, we provided evidence that where PSB is stronger, news media coverage is more politically balanced. This sustains greater confidence that the influence of PSB strength on XME is not only due to the public service broadcasting's role in reducing media fragmentation and opportunities for selective exposure, but also stems from its actual provision of more diverse content.

Although relying on governmental evaluations allows for equivalent comparisons between individuals in various contexts, other measures of cross-cutting exposure might provide different results. Levels of selective exposure are sensitive to methodological choices, that is, to the use of political ideology vs. issue attitudes (Feldman, Stroud, Bimber & Wojcieszak, 2013). Others, however, showed no substantial differences between measures of selective exposure and avoidance, using either partisanship or issue position (Garrett & Stroud, 2014). Future research needs to address such incongruences and investigate whether the results shown here remain when using other methodological approaches, or when accounting for a larger amount of media outlets beyond the limited set of mainstream newspapers and TV channels considered in our study.

Further potential problems with our findings on the impact of PSB could be ruled out by means of statistical control. For example, it is possible that particularly high levels of media-party parallelism in certain media systems would have undermined the potential benefits of PSB strength on individual exposure to political difference. This possibility is conspicuous in polarized pluralist and corporatist media systems (Hallin & Mancini, 2004) as well as in new Central and Eastern European democracies, where advocacy traditions (e.g., for Germany) and high degrees of media politicization (e.g., for Bulgaria) make it easier for audiences to select news content along partisan lines, as reported in previous studies

(Goldman & Mutz, 2011). Our analyses on a larger country sample with more recent data revealed no significant negative impact of media-party parallelism on XME nor any influence on the PSB coefficient, when parallelism was included in the regression models⁷.

The deliberative nature of our dependent variable (XME) makes comparing media consumption and exposure to (online and offline) social networks a research avenue worth exploring. A fruitful direction for future studies would be to test whether PSB has the same explanatory power for exposure to disagreement on the Internet, where levels of partisanship and political homophily are shown to be high (Colleoni, Rozza, & Arvidsson, 2014; Garrett, 2009; Mutz & Young, 2011). In online communication, as in interpersonal communication, people tend to be surrounded by like-minded others, thereby greatly limiting the potential for PSB to increase people's likelihood to overcome lines of political difference (but see Gentzkow and Shapiro, 2011; Webster and Ksiazek, 2012 for the opposite argument, and Flaxman, Goel and Rao, 2016 for evidence for both sides of the debate). It would therefore be useful to test whether political interest plays a similar role in explaining XME through political discussion. Previous research suggests that heterogeneity in media and in interpersonal discussion have differential effects on political interest (Torcal & Maldonado, 2014); and that, for the cross-cutting exposure in social interactions, further psychological mechanisms may be at work, such as fear of social accountability (Mutz, 2002b). Previous studies also show that political interest either increases selective exposure (Stroud, 2011) or significantly predicts exposure to *both* selective and cross-cutting views (Garrett, 2009). Further research should uncover under which conditions these two patterns of media exposure are intertwined, conflated, or do not converge at all. Finally, future research should investigate whether trends toward media market concentration in favor of commercial operators can also contribute to bridge deliberative gaps between citizens with different socio-economic backgrounds and/or political attitudes, as shown in this study for public TV

channels. Could competition hinder access to media pluralism and political diversity?

Following spatial models that predict convergence to median brand locations (Downs, 1957; Hotelling, 1929), a strand of economic research has shown that media companies in highly concentrated markets tend to cater for larger (and by extension more heterogeneous) audiences than those in more fragmented markets (Mullainathan & Sheifer, 2005; Steiner, 1952). Overall, we hope the present study paves the way for future research on how the structure of media markets might facilitate mutual understanding and equalize opportunities for pluralism via exposure to political views unlike one's own.

Notes

¹ For further details, see EES 2009 Media Study Data report in Schuck et al., 2010.

² We use random intercept regressions for the sake of parsimony and to avoid interpretation problems. First, we center our explanatory variables in order to better interpret the value of the coefficients of the two variables involved in the interaction term (after centering, the coefficient of each of those variables corresponds to its slope when the other variable is at its mean) and the intercept (which after centering is interpreted as the expected XME keeping the explanatory variables at their means). Had we used random slopes regressions –letting the slopes vary across countries- the value of the intercept would have changed with the shift of scale. Second, with multilevel interactions predicting slopes is more difficult than predicting intercepts, and if there is any measurement error in one of the variables in the interaction, the latter's value risks lacking reliability (see Hox, 2010, pp.59-68).

³ As the EES voter survey questionnaire only allows consideration of those individuals that either approve or disapprove of their government's record, but not those who are ambivalent or indifferent, we conduct further regression analysis with an additional measure of cross-cutting news exposure. The latter is built on the same formula described above. However, rather than relying on governmental evaluations as a proxy for individuals' political

affections, we use the left–right self-placement of individuals and the average self-placement of the audiences of media outlets to which they are exposed on a weekly basis. The trends found with this latter measure are similar to those uncovered by the original analyses using our main measure of cross-cutting news media exposure (see Appendix D for results of additional analyses and robustness tests).

⁴ For Wallonia and Flanders we used data from 2012 provided by the Munich Society for the Promotion of Economic Research (CESifo) at the University of Munich, retrieved from https://www.cesifo-group.de/ifoHome/facts/DICE/Infrastructure/Communication-Networks/Regulation/Public-Service-Broadcasting--An-International-Comparison/fileBinary/Public-Service-Broadcasting_dicereport314-db1.pdf

⁵ For Estonia, Greece, Italy, Latvia, Austria and Slovakia, data were retrieved from Colomer (2004); for Cyprus, Malta, and Luxembourg, as reported in official sites of the country's parliament (for Cyprus, accessed on 12.09.2016), and governments (for Malta, 12.09.2016, and for Luxembourg, 13.09.2016).

⁶ Further robustness checks where PSB strength is correlated to a measure of *one-sidedness* in news coverage per country provided support to the assumption that public media create opportunity structures to cross-select political information. Where PSB audience share is higher, media outlets grant a more proportionate visibility to parties as compared to their voting share (Pearson's $r = -.274$, $p = .005$, confidence intervals = $-.391$, $-.153$, $N = 24$). In line with our theoretical expectations, PSB standards seem to spill-over commercial media.

⁷ As an additional robustness check, we ran regressions with a dummy variable: countries in which there is governmental control over PSBs (i.e. polarized-pluralist countries and post-communist democracies = 1) and the rest of the countries (= 0). Results confirmed the same patterns found in the original models we report, providing support for our hypotheses.

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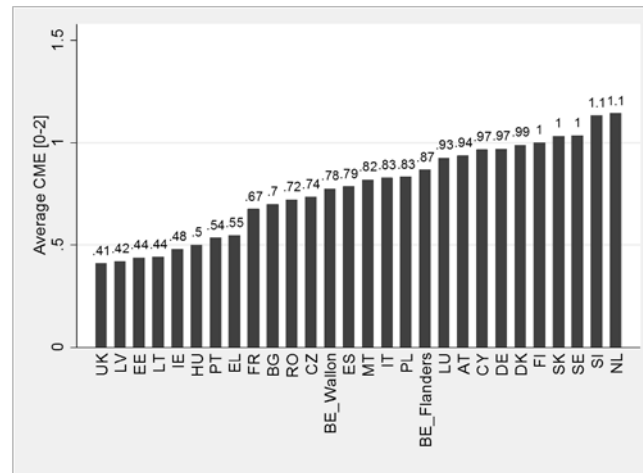
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Tables and Figures

Figure 1: Average Level of Cross-Cutting News Exposure in 28 EU Media Systems



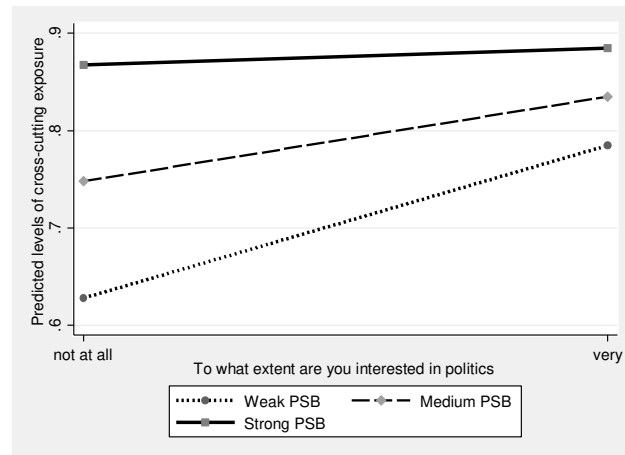
Note: For country abbreviations, we used ISO 3166-1 Alpha-2 codes.

Table 1: Random-intercept Regression Models of Cross-Cutting News Media Exposure by Political Interest

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
Political interest			0.026***	0.006	0.026***	0.006	0.025***	0.006
Political knowledge			0.009**	0.003	0.009**	0.003	0.090**	0.003
Political ambivalence			-0.001	0.002	-0.001	0.002	-0.001	0.002
News media exposure			0.019***	0.003	0.019***	0.003	0.019***	0.003
Left-right self-placement (rightist)			0.016***	0.002	0.016***	0.002	0.015***	0.002
Age			0.002***	0.000	0.002***	0.000	0.002***	0.000
Level of education			0.011**	0.004	0.011**	0.004	0.011**	0.004
Female			-0.030***	0.009	-0.030***	0.009	-0.031***	0.009
PSB strength					0.006*	0.002	0.006*	0.002
PSB strength*Political interest							-0.002***	0.000
Electoral system (Proportional)					0.155**	0.056	0.155**	0.056
Media-party parallelism					-0.001	0.005	-0.001	0.005
constant	0.794***	0.041	0.805***	0.041	0.804***	0.034	0.806***	0.034
N (level 1)	21,068		21,068		21,068		21,068	
N (level 2)	28		28		28		28	
Variance level 1 (σ^2)	0.404***		0.396***		0.396***		0.396***	
Variance level 2 (τ_{00})	0.047***		0.045***		0.031***		0.031***	
Log likelihood	-20407.07		-20204.73		-20199.60		-20189.84	

Note. Table reports unstandardized coefficients from random-intercept regression models. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed).

Figure 2: Marginal Effect of Political Interest on Cross-Cutting News Media Exposure, by Public Service Broadcasting Strength



Note. Data from multilevel models, see Table 1 (model 4). Strong PSB attenuates the differences between the more and less engaged, in cross-cutting exposure to different views.

Appendices

Appendix A

Question wording and coding of variables:

Government evaluation:

Do you approve or disapprove of the government's record to date? -1=disapprove, 1=approve.

Exposure to specific news programs/newspapers:

In a typical week, how many days do you watch the following news programs/do you read the following newspapers? 0=0 days, 1=1-7 days a week

Political interest:

To what extent are you interested in politics? (4-point scale).

Political knowledge (additive index):

Switzerland is a member of the EU

The European Union has 25 member states

Every country in the EU elects the same number of representatives to the European Parliament

Every six months a different Member State becomes president of the Council of the EU

(0-6 multiple choice with one-true options and DK. Correct answer 1 point)

Political ambivalence:

The difference between the first most preferred and the second most preferred party preference (i.e. the two highest scores reported to the question: How probable is it that you will ever vote for the following parties? 0 = “not at all”, 10, =“very probable”) is computed as each individual’s level of political ambivalence, ranging from 0 to 10. This difference is subtracted from 10 so that the higher the indicator scores, the higher the level of ambivalence.

News media exposure:

In a typical week, how many days do you follow the news? (0-7).

Left-right self-placement:

In political matters people talk of “the left” and “the right”. What is your position? (0=left, 10=right).

Level of education:

What is the highest level of education you have completed? (0-6)

Media-party parallelism:

The probability to vote for a given party of EES 2009 respondents is regressed on each individual’s frequency of use of the two TV channels and three newspapers of each media system. The resulting adjusted R2 accounts for the degree of variance of party preference explained by media use patterns. Each party’s adjusted R2 score is finally weighted according to its voting share and summed up to the rest of parties’ adjusted R2 values to obtain a score of media-party parallelism at the media system level.

Appendix B

Calculation of Cross-cutting News Media Exposure (XME)

For each individual i ,

$$XME_i = \begin{cases} \frac{\sum_{j \in J(i)} |\alpha_i - \beta_j| \cdot \delta_i(j)}{\sum_{j \in J(i)} \delta_i(j)} & \text{if } \sum_{j \in J(i)} \delta_i(j) > 0, \\ 0 & \text{otherwise,} \end{cases}$$

where α_i indicates each individual's i evaluation of the government, and β_j is the average government's evaluation by media outlet j . $\delta_i(j) = 1$ if individual i is exposed to media outlet j and $\delta_i(j) = 0$ otherwise. The resulting equation computes the distance between one's own evaluation of the government and the positive/negative governmental evaluation by the media he or she is exposed to, divided by the number of media outlets this individual uses on a weekly basis. Examples of possible scores for a given individual and a given media outlet are the following:

$|(-1) - (-1)| = 0$ (when an individual disapproves the government record and the media outlet they use too).

$|(-1) - 0| = |-1| = 1$ (when an individual disapproves the government record and the media outlet they use hold mixed/balanced views).

$|(-1) - 1| = |-2| = 2$ (when an individual disapproves the government record and the media outlet they use approves it).

$|1 - 1| = 0$ (when an individual approves the government record and the media outlet they use too).

$|1 - 0| = 1$ (when an individual approves the government record and the media outlet they use hold mixed/balanced views).

$|1 - (-1)| = 2$ (when an individual approves the government record and the media outlet they use disapproves it).

Appendix C

Table 2: Descriptive statistics

Variable	N	Min	Max	Mean	SD	Variance
XME	21068	0	2	0.799	0.674	0.455
Political interest	21068	1	4	2.648	0.868	0.753
Political knowledge	21068	0	6	3.651	1.616	2.610
Political ambivalence	21068	0	10	7.105	3.011	9.067
News media exposure	21068	0	7	6.057	1.744	3.040
Left-right self-placemen	21068	0	10	5.323	2.745	7.533
Age	21068	18	95	50.352	16.652	277.302
Level of education	21068	0	6	3.541	1.368	1.871
Female	21068	0	1	0.538	0.499	0.249

Table 3: Variance-Covariance Matrix

Variable	XME	Pol. interest	Pol. knowledge	Pol. ambivalence	News media exposure	Rightist	Age	Level of education	Female
XME	0.455								
Political interest	0.049	0.753							
Political knowledge	0.092	0.434	2'610						
Political ambivalence	-0.011	-0.190	-0.629	9'067					
News media exposure	0.115	0.403	0.494	-0.212	3'040				
Rightist	0.091	-0.034	-0.041	-0.270	0.114	7'533			
Age	1'043	1'942	3'197	-6.370	8'667	2'147	277'302		
Level of education	0.208	0.198	0.482	0.402	0.042	0.425	-4.322	1'871	
Female	-0.015	-0.054	-0.159	-0.006	-0.024	-0.002	0.248	-0.012	0.249

Appendix D

Additional regression models with a second variable of cross-cutting media exposure and further controls

Table 4: Random-intercept regression models with a second measure of cross-cutting news media exposure (along left-right scale) by political interest

	Model 1		Model 2		Model 3		Model 4	
	B	SE	B	SE	B	SE	B	SE
Political interest			0.250***	0.014	0.251***	0.014	0.250***	0.014
Political knowledge			-0.042***	0.007	-0.042***	0.007	-0.042***	0.007
Political ambivalence			-0.073***	0.004	-0.073***	0.004	-0.073***	0.004
News media exposure			0.065***	0.007	0.065***	0.007	0.065***	0.007
Left-right self-placement (rightist)			-0.039***	0.004	-0.039***	0.004	-0.039***	0.004
Age			0.006***	0.001	0.006***	0.001	0.006***	0.001
Level of education			-0.079***	0.009	-0.079***	0.009	-0.079***	0.009
Female			0.041	0.022	0.041	0.022	0.040	0.022
PSB strength					-0.002	0.004	-0.002	0.004
PSB strength*Political interest							-0.002*	0.001
Electoral system (Proportional)					0.122	0.093	0.123	0.093
Media-party parallelism					0.011	0.008	0.011	0.008
constant	1.925***	0.065	1.886***	0.061	1.888***	0.057	1.890***	0.057
N (level 1)	22,593		22,593		22,593		22,593	
N (level 2)	28		28		28		28	
Variance level 1 (σ ²)	2.718***		2.551***		2.551***		2.550***	
Variance level 2 (τ ₀₀)	0.116***		0.096***		0.083***		0.085***	
Log likelihood	-43401.403		-42684.49		-42682.59		-42680.226	

Note. Table reports unstandardized coefficients from random-intercept regression models. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed).

Additional variables accounting for individual exposure to media's political diversity, both within- and between- each media outlet, are computed and included as control variables in further regression models in the following. As one reviewer highlighted, and the regression models confirm, the greater the levels of exposure to diverse viewpoints in the media, the higher the likelihood of encountering uncongenial views.

Within-outlet diversity (or WOD) was constructed for each individual i as follows:

$$WOD_i = \frac{\sum_{j \in J(i)} \sigma_j \cdot \delta_i(j)}{\sum_{j \in J(i)} \delta_i(j)}$$

where σ_j indicates the standard deviation of government's evaluation by each media outlet j that individual i uses ($\delta_i(j) = 1$ if individual i is exposed to media outlet j and $\delta_i(j) = 0$ otherwise). The resulting scores of the measure stand for the average dispersion of the distribution of viewpoints (i.e. government's evaluation) within each media outlet an individual uses on a weekly basis.

Between-outlet diversity (or BOD) was constructed for each individual i as follows:

$$BOD_i = \sqrt{\frac{\sum_{j \in J(i)} (\beta_j - \bar{x}_i)^2 \cdot \delta_i(j)}{\sum_{j \in J(i)} \delta_i(j)}}$$

where β_j is the average government's evaluation by media outlet j and \bar{x}_i indicates the average government's evaluation of individual i 's media diet. $\delta_i(j) = 1$ if individual i is exposed to media outlet j and $\delta_i(j) = 0$ otherwise. The resulting equation computes the standard deviation of the average government's evaluation of all the media outlets an individual uses at least once a week.

Table 5: Random-intercept regression models of cross-cutting news media exposure by political interest (with within- and between-outlet diversity controls)

	Model 1c		Model 2c		Model 3c		Model 4c	
	B	SE	B	SE	B	SE	B	SE
Political interest			0.013*	0.006	0.013*	0.006	0.013*	0.006
Political knowledge			0.045	0.003	0.045	0.003	0.048	0.003
Political ambivalence			-0.004*	0.002	-0.004*	0.002	-0.004*	0.002
News media exposure			-0.006	0.003	-0.006	0.003	-0.006	0.003
Left-right self-placement (rightist)			0.015***	0.002	0.015***	0.002	0.015***	0.002
Age			0.002***	0.000	0.002***	0.000	0.002***	0.000
Level of education			0.014***	0.004	0.014***	0.004	0.014***	0.004
Female			-0.031***	0.009	-0.031***	0.009	-0.031***	0.009
Within-outlet diversity exposure			0.297***	0.025	0.295***	0.025	0.298***	0.025
Between-outlet diversity exposure			0.075*	0.034	0.076*	0.034	0.073*	0.034
PSB strength					0.007*	0.003	0.007**	0.003
PSB strength*Political interest							-0.002***	0.000
Electoral system (Proportional)					0.096	0.059	0.096	0.059
Media-party parallelism					-0.002	0.005	-0.002	0.005
constant	0.861***	0.042	0.858***	0.041	0.857***	0.036	0.859***	0.036
N (level 1)	19,336		19,336		19,336		19,336	
N (level 2)	28		28		28		28	
Variance level 1 (σ^2)	0.381***		0.374***		0.374***		0.373***	
Variance level 2 (τ_{00})	0.048***		0.045***		0.034***		0.034***	
Log likelihood	-18174.44		-17984.33		-17980.52		-17970.27	

Note. Table reports unstandardized coefficients from random-intercept regression models. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed).